

WHAT IS CLAIMED IS:

1     **1.**   A splice for connecting thin-walled components to each  
2       other, said splice comprising a first end portion of a  
3       structural component (101), a second end portion of a  
4       further structural component (102), an overlapping contact  
5       surface area between said first and second end portions, at  
6       least one row (6) of rivets subject to dynamic loads and  
7       passing through said first and second end portions and  
8       through said overlapping contact surface area, a further  
9       row (7) of rivets extending between an end portion edge  
10      (4A) and said at least one row of rivets, said further row  
11      (7) of rivets comprising means holding said first and  
12      second end portions together while simultaneously  
13      permitting a relative motion of said first and second end  
14      portions in a direction parallel to said overlapping  
15      contact surface area.

1     **2.**   The splice of claim 1, wherein said second row of rivets  
2       comprises rivets including said holding means in the form  
3       of a rivet head, a rivet shaft, and a rivet closure for  
4       providing a positive interlocking force in a direction  
5       parallel to a central axis (9) of said rivet shaft and for  
6       further providing a slidable fit in said direction parallel  
7       to said overlapping contact surface area, said positive  
8       interlocking force providing friction in said overlapping  
9       contact surface area.

1     **3.**     The splice of claim 2, wherein said rivet shaft comprises  
2             a first shaft section with a first shaft diameter fitting  
3             snugly into a first rivet hole in one of said first and  
4             second end portions, and a second shaft section having a  
5             second diameter smaller than said first shaft diameter,  
6             said second smaller shaft diameter providing a gap (12)  
7             between said second shaft section and a wall of a second  
8             rivet hole in the other end portion of said first and  
9             second end portions for permitting said limited relative  
10            motion.

1     **4.**     The splice of claim 2, wherein said rivet shaft comprises  
2             a uniform shaft diameter between said rivet head and said  
3             rivet closure, said first end portion having a first rivet  
4             hole with a hole diameter providing a snug fit between a  
5             wall of said first rivet hole and said rivet shaft, said  
6             second end portion having a second rivet hole with a hole  
7             diameter larger than said uniform shaft diameter thereby  
8             providing a gap (12) between said rivet shaft and a wall of  
9             said second rivet hole for permitting said limited relative  
10            motion.

1     **5.**     The splice of claim 3, comprising a press-fit or  
2             interference fit between said first shaft diameter and a  
3             wall of said first rivet hole.

- 1     **6.**    The splice of claim 4, comprising a press-fit or  
2           interference fit between said rivet shaft and a wall of  
3           said first rivet hole.
- 1     **7.**    The splice of claim 2, wherein said rivet shaft comprises  
2           a shaft shoulder (16) for clamping one of said first and  
3           second sheet metal end portions.
- 1     **8.**    The splice of claim 2, wherein said rivet shaft has such an  
2           axial shaft length that a defined clamping force is applied  
3           to said first and second sheet metal end portions when said  
4           rivet is set.
- 1     **9.**    The splice of claim 2, wherein said rivet shaft has a  
2           threaded shaft end, and wherein said rivet closure  
3           comprises a closure ring or collar with an internal  
4           threading cooperating with said threaded shaft end for  
5           applying an adjustable clamping force to said first and  
6           second sheet metal end portions.
- 1     **10.**   The splice of claim 2, wherein said rivets in said second  
2           row of rivets are "Hi-Lok" fitting rivets each including a  
3           "Hi-Lok" collar.
- 1     **11.**   The splice of claim 2, wherein said first and second end  
2           portions are sheet metal end portions and wherein said  
3           first and second sheet metal end portions comprises a  
4           recess (20) for receiving said rivet head.

1     **12.** The splice of claim 1, wherein said further row (7) of  
2         rivets extends in parallel to said at least one row (6) of  
3         rivets that is subject to dynamic loads.